

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Weston, et al.  
Serial No.: To Be Assigned  
Filed: Concurrent Herewith  
For: ANTISENSE HUMAN FUCOSYLTRANSFERASE SEQUENCES  
AND METHODS OF USE THEREOF

Date: November 7, 2001

BOX PATENT APPLICATION  
Commissioner for Patents  
Washington, DC 20231

**PRELIMINARY AMENDMENT**

Sir:

Prior to the examination of the above application and calculation of claim fees, please amend the above-identified application as indicated below.

**IN THE SPECIFICATION:**

On page 1, line 9, please insert the following:

**Cross-Reference to Related Applications**

This application is a continuation of co-pending United States Application Serial No. 09/556,031, filed on April 20, 2000 (now allowed) which claims priority from U.S. Provisional Application Serial No. 60/131,068, filed April 26, 1999, the disclosures of which are incorporated by reference herein in their entirety.

**IN THE CLAIMS:**

Please cancel claims 1-8, 12-15 and 19-21.

Please amend Claim 9 as follows:

9. (Amended) A method of treating a subject afflicted with cancer, comprising administering to said subject an antisense oligonucleotide that hybridizes to a nucleic acid that encodes a fucosyltransferase, wherein said fucosyltransferase is selected from the group consisting of FUT3 and FUT6;

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said oligonucleotide selected from the group consisting of oligonucleotides consisting of the sequence:

AGGCCATGGCAGGTTTCCTG (SEQ ID NO: 1);  
AACTGAAGATCTACAAAAGA (SEQ ID NO: 2);  
ACCAAGGTTCTGGAAAGAGA (SEQ ID NO: 3);  
TGTAGGTCACCTGAGTGTGA (SEQ ID NO: 4);  
GCTGCACCCAGGGGATCCAT (SEQ ID NO: 5);  
TCTCGTAGTTGCTTCTGCTG (SEQ ID NO: 6);  
GAGCGAGGCCGCAGCGTCTC (SEQ ID NO: 7);  
ATCAGCCAGAACCATCACTC (SEQ ID NO: 8);  
ACCTGTACCCTATAAGTGGT (SEQ ID NO: 9);  
GATAACTTACCTGGAGAGGC (SEQ ID NO: 10);  
TTAGGGTTGGACATGATATC (SEQ ID NO: 11);  
CCCACTCCTGCAGGGCAGTG (SEQ ID NO: 12);  
GGGTCTTCACCACTGGAGAG (SEQ ID NO: 13);  
AGTGAAAAGGCTGACCTGAA (SEQ ID NO: 14);  
TGGATGCCCGTGACACTGGG (SEQ ID NO: 15);  
GCCGGGCCCAGGGGATCCAT (SEQ ID NO: 16);  
CACCCAGATCCAGCGTCCCA (SEQ ID NO: 17);  
ATCTCCTGACCTTGTGATCC (SEQ ID NO: 18);  
GATCTCCTGACCTAGGAAGA (SEQ ID NO: 19);  
TTCTCACTCAGTTGGCCCAT (SEQ ID NO: 20);  
CCAACCACCACACCTGTCAT (SEQ ID NO: 21);  
GGACGAGTAACAGCTGGATT (SEQ ID NO: 22);  
GCTTGCTGCACCCAGGGGATC (SEQ ID NO: 23);  
CTCTGCCGCTCCTGGACACTGCTGC (SEQ ID NO: 24);

and continuous 15 or 18 nucleotide fragments of the sequences listed above in an amount effective to treat said cancer.

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Please amend Claim 16 as follows:

16. (Amended) A method of treating a subject afflicted with cancer, comprising administering to said subject a vector that comprises and expresses an exogenous nucleic acid encoding an antisense oligonucleotide that hybridizes to an endogenous nucleic acid that encodes a fucosyltransferase, wherein said fucosyltransferase is selected from the group consisting of FUT3 and FUT6 and wherein said nucleic acid is selected from the group consisting of:

AGGCCATGGCAGGTTTCCTG (SEQ ID NO: 1);  
AACTGAAGATCTACAAAAGA (SEQ ID NO: 2);  
ACCAAGGTTCTGGAAAGAGA (SEQ ID NO: 3);  
TGTAGGTCACCTGAGTGTGA (SEQ ID NO: 4);  
GCTGCACCCAGGGGATCCAT (SEQ ID NO: 5);  
TCTCGTAGTTGCTTCTGCTG (SEQ ID NO: 6);  
GAGCGAGGCCGCAGCGTCTC (SEQ ID NO: 7);  
ATCAGCCAGAACCATCACTC (SEQ ID NO: 8);  
ACCTGTACCCTATAAGTGGT (SEQ ID NO: 9);  
GATAACTTACCTGGAGAGGC (SEQ ID NO: 10);  
TTAGGGTTGGACATGATATC (SEQ ID NO: 11);  
CCCACTCCTGCAGGGCAGTG (SEQ ID NO: 12);  
GGGTCTTCACCACTGGAGAG (SEQ ID NO: 13);  
AGTGAAAAGGCTGACCTGAA (SEQ ID NO: 14);  
TGGATGCCCGTGACACTGGG (SEQ ID NO: 15);  
GCCGGGCCCAGGGGATCCAT (SEQ ID NO: 16);  
CACCCAGATCCAGCGTCCCA (SEQ ID NO: 17);  
ATCTCCTGACCTTGTGATCC (SEQ ID NO: 18);  
GATCTCCTGACCTAGGAAGA (SEQ ID NO: 19);  
TTCTCACTCAGTTGGCCCAT (SEQ ID NO: 20);  
CCAACCACCACACCTGTCAT (SEQ ID NO: 21);  
GGACGAGTAACAGCTGGATT (SEQ ID NO: 22);  
GCTTGGCTGCACCCAGGGGATC (SEQ ID NO: 23);  
CTCTGCCGCTCCTGGACACTGCTGC (SEQ ID NO: 24);

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[illegible]

Please add Claim 22:

22. (New) A method according to claim 9, wherein said oligonucleotide does not activate RNase H.

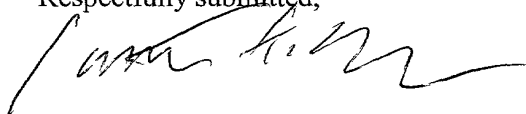
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**REMARKS**

Attached hereto is a marked-up version of the changes made to the specification and claims by the current Preliminary Amendment. The attached page is captioned "Version with markings to show changes made."

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



Jarett K. Abramson  
Attorney for Applicants  
Registration No. 47,376



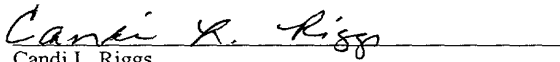
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PATENT TRADEMARK OFFICE

**CERTIFICATE OF EXPRESS MAILING**

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I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to BOX PATENT APPLICATION, Commissioner for Patents, Washington, DC 20231.



Candi L. Riggs

Date of Signature: November 7, 2001

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### Version With Markings To Show Changes Made

A marked up version of each of the presently amended claims and specification, highlighting the changes thereto, follows:

#### IN THE SPECIFICATION:

New paragraph at page 1, line 2, has been added as follows:

##### Cross-Reference to Related Applications

This application is a continuation of co-pending United States Application Serial No. 09/556,031, filed on April 20, 2000 (now allowed) which claims priority from U.S. Provisional Application Serial No. 60/131,068, filed April 26, 1999, the disclosures of which [is] are incorporated by reference herein in [its] their entirety.

#### IN THE CLAIMS:

Claims 1-8, 12-15 and 19-21 have been cancelled.

Claim 9 has been amended as follows:

9. (Amended) A method of treating a subject afflicted with cancer, comprising administering to said subject an antisense oligonucleotide [according to claim 1] that hybridizes to a nucleic acid that encodes a fucosyltransferase, wherein said fucosyltransferase is selected from the group consisting of FUT3 and FUT6;

said oligonucleotide selected from the group consisting of oligonucleotides consisting of the sequence:

AGGCCATGGCAGGTTTCCTG (SEQ ID NO: 1);

AACTGAAGATCTACAAAAGA (SEQ ID NO: 2);

ACCAAGGTTCTGGAAAGAGA (SEQ ID NO: 3);

TGTAGGTCACCTGAGTGTGA (SEQ ID NO: 4);

GCTGCACCCAGGGGATCCAT (SEQ ID NO: 5);

TCTCGTAGTTGCTTCTGCTG (SEQ ID NO: 6);

GAGCGAGGCCGCAGCGTCTC (SEQ ID NO: 7);

ATCAGCCAGAACCATCACTC (SEQ ID NO: 8);

ACCTGTACCCTATAAGTGGT (SEQ ID NO: 9);

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GATAACTTACCTGGAGAGGC (SEQ ID NO: 10);  
TTAGGGTTGGACATGATATC (SEQ ID NO: 11);  
CCCACTCCTGCAGGGCAGTG (SEQ ID NO: 12);  
GGGTCTTCACCACTGGAGAG (SEQ ID NO: 13);  
AGTGAAAAGGCTGACCTGAA (SEQ ID NO: 14);  
TGGATGCCCGTGACACTGGG (SEQ ID NO: 15);  
GCCGGGCCCAGGGGATCCAT (SEQ ID NO: 16);  
CACCCAGATCCAGCGTCCCA (SEQ ID NO: 17);  
ATCTCCTGACCTTGTGATCC (SEQ ID NO: 18);  
GATCTCCTGACCTAGGAAGA (SEQ ID NO: 19);  
TTCTCACTCAGTTGGCCCAT (SEQ ID NO: 20);  
CCAACCACCACACCTGTCAT (SEQ ID NO: 21);  
GGACGAGTAACAGCTGGATT (SEQ ID NO: 22);  
GCTTGGCTGCACCCAGGGGATC (SEQ ID NO: 23);  
CTCTGCCGCTCCTGGACACTGCTGC (SEQ ID NO: 24);

and continuous 15 or 18 nucleotide fragments of the sequences listed above in an amount effective to treat said cancer.

Claim 16 has been amended as follows:

16. (Amended) A method of treating a subject afflicted with cancer, comprising administering to said subject a vector [according to claim 14] that comprises and expresses an exogenous nucleic acid encoding an antisense oligonucleotide that hybridizes to an endogenous nucleic acid that encodes a fucosyltransferase, wherein said fucosyltransferase is selected from the group consisting of FUT3 and FUT6 and wherein said nucleic acid is selected from the group consisting of:

AGGCCATGGCAGGTTTCCTG (SEQ ID NO: 1);  
AACTGAAGATCTACAAAAGA (SEQ ID NO: 2);  
ACCAAGGTCTTGAAAGAGA (SEQ ID NO: 3);  
TGTAGGTCACCTGAGTGTGA (SEQ ID NO: 4);  
GCTGCACCCAGGGGATCCAT (SEQ ID NO: 5);  
TCTCGTAGTTGCTTCTGCTG (SEQ ID NO: 6);

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GAGCGAGGCCGCAGCGTCTC (SEQ ID NO: 7);  
ATCAGCCAGAACCATCACTC (SEQ ID NO: 8);  
ACCTGTACCCTATAAGTGGT (SEQ ID NO: 9);  
GATAACTTACCTGGAGAGGC (SEQ ID NO: 10);  
TTAGGGTTGGACATGATATC (SEQ ID NO: 11);  
CCCACTCCTGCAGGGCAGTG (SEQ ID NO: 12);  
GGGTCTTCACCACTGGAGAG (SEQ ID NO: 13);  
AGTGAAAAGGCTGACCTGAA (SEQ ID NO: 14);  
TGGATGCCCCGTGACACTGGG (SEQ ID NO: 15);  
GCCGGGGCCAGGGGATCCAT (SEQ ID NO: 16);  
CACCCAGATCCAGCGTCCCA (SEQ ID NO: 17);  
ATCTCCTGACCTTGTGATCC (SEQ ID NO: 18);  
GATCTCCTGACCTAGGAAGA (SEQ ID NO: 19);  
TTCTCACTCAGTTGGCCCAT (SEQ ID NO: 20);  
CCAACCACACACCTGTCAT (SEQ ID NO: 21);  
GGACGAGTAACAGCTGGATT (SEQ ID NO: 22);  
GCTTGGCTGCACCCAGGGGATC (SEQ ID NO: 23);  
CTCTGCCGCTCCTGGACACTGCTGC (SEQ ID NO: 24);

and continuous 15 or 18 nucleotide fragments of the sequences listed above in an amount effective to treat said cancer.

Claim 22 has been added as follows:

22. (New) A method according to claim 9, wherein said oligonucleotide does not activate RNase H.

\*\*\* END \*\*\*